



June 18, 2016

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



RE: Comments on Proposed Amendments To The California Ocean Plan And Inland Surface Waters, Enclosed Bays, And Estuaries Of California Plan To Include Procedures For Discharges Of Dredged Or Fill Materials To Waters Of The State (Formerly Known As The Wetlands Policy)

Dear Ms. Townsend:

I am providing the comments below on the Proposed Amendments (also referred to as the Preliminary Draft) issued by the State Board for public comment on June 17, 2016. I am submitting these comments based on my 35 year professional experience as a wetland scientist, environmental consultant, and expert in the field of wetland regulatory science. I have developed and processed hundreds of Clean Water Act (CWA) Section 404 permit applications for sites throughout California for both private parties and governmental agencies, in addition to state CWA Section 401 Certifications and Waste Discharge Requirements. I have worked with dedicated and responsible Regional Board staff in all of the Regions and therefore have a broad perspective on the diversity of the wetlands that they deal with, as well as the time commitments necessary to process the current permit workload. I am basing these comments on my review of the documents prepared by the State Board staff and attendance at the workshop held in Rancho Cordova. I also reviewed the Technical Advisory Team Memoranda and the prior proposals that the State Board developed to implement Resolution No. 2008-0026. It was then referred to as the Wetland and Riparian Area Protection Policy and was very different than the current Proposed Amendments.

At the workshop State Board staff indicated that the desired outcomes from the proposed changes are to bring consistency among the Regional Boards in the application of the regulations and procedures; to strengthen regulatory effectiveness; and to streamline the application process for the issuance of Waste Discharge Requirements for fill and dredging activities. While I agree with the importance of consistency among the various Regional Boards; it is my opinion that the proposed changes will not improve regulatory effectiveness nor streamline the application process. The wide discretion granted to the Regional Boards by the Proposed Amendments, due to the substantial number of instances where the Proposed Amendments provide for a "case-by-case" review by Regional Board staff, will lead to differences in implementation and practice by the various Regional Boards, thereby continuing or even increasing inconsistent implementation. In addition, the proposal includes a wetland definition that differs substantially from the federal permit program. These differences will increase the burden on

applicants due to duplication and overlapping permitting requirements and will require additional resources by the Regional Boards and the State Board to implement and then process the large number of applications received each year.

The focus of my comments are in three areas: the new State wetland definition; the expansion of the use of the 404(b)(1) Alternatives Analysis to U.S. Army Corps of Engineers' (Corps) Nationwide Permits (NWP); and the significant differences in the state compensatory mitigation procedures compared to federal procedures. Finally, I provide information showing that these proposed changes will lead to significant costs and delays to private and governmental applicants and will require major new staffing within the Regional Boards to handle the additional work load.

1. Wetland Definition and Exclusions

1.1 *Wetland Definition*

The State Board proposal would formally adopt a California-only definition of "wetland." This definition was characterized at the workshops by State Board staff as "informational." According to the State Board staff, the definition of wetland is meant to assist staff in determining whether there is a "wetland," and a second step would then be required to determine whether the "wetland" is a "waters of the State." Because the definition is only intended to be "informational," staff at the workshop indicated the possibility that some features would meet the wetland criteria in the proposed definition but would not be regulated as a water of the State. Staff was unable, however, to provide any specific examples of a feature that would meet the proposed definition but would not be subject to regulation as a "water of the State". There are numerous and significant concerns with this proposed definition of wetland.

The Preliminary Draft states that a wetland in California would be defined as:

An area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area is either dominated by hydrophytic vegetation or lacks vegetation.

The Preliminary Draft states that Regional Board staff *may* consider areas that meet the above definition as a wetland. However, the proposal gives the Regional Board staff the ultimate discretion to characterize features as a wetland on a "case-by-case basis." The discretion given to Regional Board staff will lead to greater uncertainty by the applicants as to what features are covered by this definition and how the definition will be applied by staff in the field. This will make it very difficult for project applicants to determine whether or not Waste Discharge Requirements are necessary for specific projects and/or what features would be subject to regulation. That uncertainty will increase the costs of permitting projects and will substantially increase demand for Regional Board staff time and input throughout the application process.

The discretion provided to Regional Board staff to make “case-by-case” determinations on the presence of “wetlands” appears to conflict with the statement, made in the proposal and by State Board staff at the workshops, that the delineation of wetlands will be performed pursuant to the Corps Delineation Manual and Supplements. The State Board staff report dated June 17, 2016 also states that this new, state-only definition was intended to allow the Regional Boards to effectively regulate mudflats, playas, river bars, and shallow ponds as “wetlands.” This argument – that a wetland definition differing from the long-standing federal definition is needed to protect particular, unique features in California – has been presented in previous documents prepared for the State Board (as listed in Table 1). The features identified by the State Board as warranting additional State regulation, however, appear to be restricted to a very few, already regulated specific features (Table 1).

Table 1. Lists of non-vegetated wetlands provided in previous documents on the proposed state wetland definition.

Reference	Non-vegetated wetland examples
Technical Advisory Team Memorandum #2 Wetland Definition	non-vegetated playas, tidal flats, and non-vegetated snowmelt pools, tidal pools in tidal wetlands
Technical Advisory Team Memorandum #4	mudflats, playas, and some seasonal depressional wetlands, bare areas of wet meadows, pannes of tidal marshes
State Board Workshop Presentation	mudflats, playas, seasonal wetlands
Draft State Board Staff Report	Tidal flats, playas, some river bars, and shallow non-vegetated ponds

According to these various reports, the features that are most believed by State Board staff to not be adequately protected are tidal flats and playas. However, tidal flats are already regulated by federal and State authorities as “waters of the United States” and “waters of the State,” respectively. Under the CWA, mudflats, a type of tidal flat, are listed as “Special Aquatic Sites” and are given the same status as wetlands under federal permitting procedures.¹ Since the Proposed Amendments includes Special Aquatic Sites under Subpart E as a unique category of wetlands, the need to have them covered under the proposed definition is redundant. As for playas, these features are generally restricted to the southwestern portion of California, and are most often found within National Parks, National Monuments, and on federal military property. Therefore, there is very little state permitting activity in playas. They are, however, also classified as “waters of the United States” and therefore subject to the CWA Section 401 Certification requirements. Other examples of features identified by the State Board staff as necessitating protection via the proposed wetland definition, such as bare or ponded areas within wet meadows and pannes in tidal marshes, are located within areas classified as vegetated wetland types pursuant to the existing federal definition and any permitting actions by the Corps consider these features to be wetlands. In addition, shallow vegetated ponds are considered Special

¹ 40 C.F.R. Part 230; CWA Section 404(b)(1).

Aquatic Sites. Therefore, all of the examples of features provided by the State Board staff as necessitating a new wetland definition are currently covered under the long-standing federal definition, have been added specifically as Special Aquatic Sites, or are considered as “waters of the United States” and subject to CWA Section 401 Certification requirements. As a result, there is no need for the proposed wetland definition to differ from the long-standing federal definition in order to cover these features.

In fact, the staff report states that, in most cases, the Corps already considers such features as wetlands or otherwise “waters of the United States,” and therefore such features are regulated under the CWA. If a federal CWA Section 404 permit is already required for the discharge of dredge or fill material within such features, a CWA Section 401 Certification would also be required. The Proposed Amendments, therefore, do not clearly identify what features are currently unprotected via the existing federal wetland definition and associated CWA permitting and certification programs (or other state requirements, like the Streambed and Lake Alteration program) that would require protection via the application of the proposed state wetland definition. As a result, it is unclear why the State Board needs to adopt a wetland definition that is different from the long-standing federal definition.

Further, it is likely that the proposed definition, once put in practice, will create a broad and complex regulatory program that would result in the substantial expansion of state jurisdiction, as compared to current implementation, for several reasons:

1. The proposed definition is not the same as the definition used by the Corps, which is the basis for the Corps’ documents that are used to delineate wetlands (*e.g.*, the 1987 wetlands delineation manual and regional guidance documents like the Arid West Supplement). As such, the Regional Boards will be forced to evaluate delineations of additional geographic areas and features that do not meet the long-standing federal definition. For example, the proposed definition uses the word “upper substrate.” Substrate is not the same as hydric soil, which is the specific criterion that must be met under the Corps delineation manuals in order to meet the federal definition of “wetland.” The State Board’s Technical Advisory Team, in its Memorandum #4, stated “the USACE methodology refers to ‘soil’, whereas the proposed Water Board methodology refers to ‘substrate’, a more inclusive term” [Page 8, Version 14]. Unfortunately, the memorandum provided no further explanation as to why the term “substrate” is preferred or how the use of a more “inclusive” term would affect delineations in the field. All of the guidance in the existing 1987 and 2008 US Army Corps delineation manuals is based on indicators of hydric soil that have been developed through decades of research on this topic.² The Regional Supplements – like the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2008) – were specifically developed to make use of this exhaustive research. The Regional Manuals were developed with specific guidance from experts in the field at federal and state agencies, as well as experienced consultants. An Independent Peer Review Team was established to comment on the Corps’ 1987 and 2008 delineation

² Vepraskas, M.J. and Craft, C.B. 2016. Wetlands Soils: Genesis, Hydrology, Landscapes, and Classifications. Second Edition. CRC Press. 508 pages.

manuals and public comments were also received.³ The Corps' manuals were thoroughly vetted and examined to address many of the technical and scientific issues surrounding wetland delineation in the Arid West and Western Mountains.

The State Board staff must provide an explanation why it is using the term "upper substrate" as opposed to hydric soil and what practical differences will result in delineating wetland features due to the change. It makes no practical sense to ignore the existing longstanding terminology associated with hydric soil indicators and adopt a much less scientifically valid or understood term. Doing so will result in substantial confusion among field practitioners and project applicants and likely lead to inconsistent application of the wetland definition by Regional Board staff.

2. As stated above, the proposed definition would also identify non-vegetated features as wetlands. This is different than the long-standing practice of the EPA and the Corps and is likely to be confusing to the regulated community, the general public, and the Regional Board staff. It will likely result in the classification of features as wetlands that the public would not recognize as a wetland and that the government has not previously defined as a wetland. For example, the EPA states:

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. (Underline added).⁴

The Corps of Engineers describes to the public that wetlands are:

Wetlands are areas that are covered by water or have waterlogged soils for long periods during the growing season. Plants growing in wetlands are capable of living in saturated soil conditions for at least part of the growing season. Wetlands such as swamps and marshes are often obvious, but some wetlands are not easily recognized, often because they are dry during part of the year or "they just don't look very wet" from the roadside. Some of these wetland types include, but are not limited to, many bottomland forests, pocosins, pine savannahs, bogs, wet meadows, potholes, and wet tundra. The information presented here usually will enable you to determine whether you might have a wetland.⁵

³ http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/aridwest_peer_rev.pdf

⁴ <https://www.epa.gov/wetlands/what-wetland> What is a Wetland?

⁵ http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/rw_bro.pdf Recognizing Wetlands
An Informational Pamphlet

Each of these definitions, and the public's common understanding of what is a wetland, includes marshes, swamps, vernal pools, and other vegetated features. The State Board's definition will certainly be confusing to the public, will lead to unnecessary misconceptions by the public, and could lead to enforcement actions against individuals or government agencies who do not understand what a non-vegetated wetland might be. Furthermore, by eliminating the "vegetation" criterion for what is a wetland, the definition as literally drafted must include features like lakes, ponds, rivers, streams, and beaches as "wetlands." The State Board staff may have a different intent, but that intent is not reflected in the Preliminary Draft or the Staff Report.



Under the proposal, there would be no practical limit to the scope of what is a wetland as features like ponds, streams and beaches can have sufficient hydrology and anaerobic substrates to meet the proposed wetland definition. At the workshop that I attended, the State Board staff indicated that, of course, "puddles" would be excluded. However, under its proposed definition, a puddle could meet the wetland definition and such features are

not explicitly excluded from regulation. The feature pictured here has ponding for a sufficient period of time (14 days according to TAT Memorandum #4) and likely has anaerobic substrates (though not a hydric soil). The same is true of many lakes, rivers, and streams. The State Board staff did not provide any explanation as to why a puddle would be excluded given the proposed definition, or when a "puddle" would be large enough to be a "pond" or other similar feature that would be subject to classification as a wetland. The proposed definition provides Regional Board staff with substantial discretion to define features as a wetland and leave the public unaware of whether these examples of non-vegetative features are "wetlands." This confusion can be avoided by using the long-standing, peer-reviewed federal wetland definition.

3. Mudflats, vegetated shallows, and riffle and pool complexes are listed by the EPA⁶ as "Special Aquatic Sites" and are treated the same as wetlands under federal regulations. The Preliminary Draft also lists these features as wetlands under Subpart E. Given that these are among the features that the State Board staff identify as the reason for including un-vegetated features as "wetlands," it is unclear why the proposed definition must exclude the vegetation requirement since these features are protected under current federal policy and practice. In my experience,

⁶ 40 C.F.R. Part 230.

delineations verified by the Corps must map both wetlands that meet their definition as well as non-vegetated features identified by the presence of an ordinary high water mark.

If the State Board insists on rejecting the long-standing federal definition and adopting its own definition, it must provide specific, clear guidance on how it will characterize unvegetated features so project applicants and professionals in the field can consistently delineate site features. A definition that “may” include puddles, ponds, and lakes as wetlands – requiring each delineation to independently resolve the extent of wetlands features with Regional Board staff – will be unworkable. To the extent that there are particular types of unvegetated features that the State Board has determined are in need of further regulatory protection, the more appropriate technical approach would be to identify those features specifically as special aquatic features rather than to eliminate the vegetation criterion in the wetland definition.

4. Adopting a state definition of wetland that is different than the federal definition will lead to misinterpretation by the public and Regional Board staff and will require additional staff time to explain, justify, and implement the differences. It will also lead to additional cost and time delays for applicants and others. In my experience as an expert on wetlands, I have found that the courts will also reach independent conclusions on which wetlands are regulated under the definition, particularly if the regulation is unclear and leaves significant room for discretionary decisions to be made. Similarly, many property transactions or other independent regulatory evaluations may require identifying or disclosing features subject to state regulation. This means that independent of the State Board staff’s current intent, the proposed definition will require Regional Board staff involvement outside of the permitting realm to assist property purchasers to understand what may be regulated under their definition. Based on the definition as proposed, there is no certainty that statements made by State Board staff at a workshop that puddles or other similar features will not be identified as wetlands will, in fact, preclude future classification of these features as wetlands. Furthermore, the ambiguity created by vesting Regional Board staff with discretion to make these determinations will introduce uncertainty and risk for property owners that will be unable to ascertain with reasonable certainty how features on their property would be classified and/or regulated under State law.

I recommend that the Board adopt the same definition of wetlands as contained in the federal regulations and rely on the proposed section on Special Aquatic Sites to include mudflats. The staff also have argued that playas were a feature that they believe should be included in the definition of wetlands. If that is the State Board’s concern, despite the issues I note above about the geography of playas in California, I suggest that staff define and add playas as an additional Special Aquatic Site. Alternatively, the Board could adopt the federal definition and simply state that in addition to the wetlands covered under that definition, the Board has also determined that, for California, mudflats and playas will be regulated in a similar fashion as wetlands. This recommendation would focus on those features that the State Board staff believe are not currently considered wetlands as defined under federal regulation and because such features are affirmatively designated as covered

under the policy will reduce the potential for confusion among the public, applicants, and Regional Board staff.

1.2 Exclusions and Exemptions

In addition to consistency with the federal wetland definition, I recommend that the Proposed Amendments incorporate those exclusions contained in the Preamble to the Corps regulations⁷ and exemptions in the existing regulatory definition of “waters of the United States.”⁸ The EPA and the Corps further recognized many of these long-standing exemptions in the new definition of “waters of the United States” finalized in 2015.⁹ Features excluded from the definition of “waters of the United States” in the federal regulation include:

- Artificial, constructed lakes or ponds created by excavating and/or diking dry land such as farm and stock watering ponds, irrigation ponds, settling basins, log cleaning ponds, cooling ponds, or fields flooded for rice growing;
- Artificially irrigated areas that would revert to dry land should application of irrigation water to that area cease;
- Artificial reflecting pools or swimming pools created by excavating and/or diking dry land;
- Small ornamental waters created by excavating and/or diking dry land for primarily aesthetic reasons;
- Non-tidal drainage and irrigation ditches excavated on dry land that do not contain permanent water or do not redirect a tributary;
- Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand or gravel that fill with water;
- Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA; and
- Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways

These same exclusions should be adopted by the State Board and applied to the definition of “waters of the State.”

In addition to the exclusions and exemptions included within the federal regulations cited above and addressed in applicable federal guidance, I also recommend adopting an exemption for an additional type feature from the scope of “water of the State” for regulatory purposes: industrial, food, and agricultural waste and processing ponds. These features are often artificially created, and have specific purposes for processing or storing materials that are considered pollutants. Examples include manure and other dairy waste processing ponds, stabilization and settling ponds for industrial processing, poultry and other food processing wash water storage ponds, and processed water storage ponds for

⁷ 51 Fed. Reg. 41,217 (Nov. 13, 1986).

⁸ 33 C.F.R. § 328.3.

⁹ 80 Fed. Reg. 37,054 (June 29, 2015).

the oil drilling industry.

All of these features are generally unvegetated and therefore could be considered wetlands if the definition in the Proposed Amendments was adopted. These features, like wastewater treatment ponds, require continual maintenance and management to assure their proper operation and treatment and storage of waste. The liquids contained in these features cannot be discharged to receiving waters without proper permits from the Regional Boards. Because these features require maintenance to avoid discharges, classifying these features as wetlands and/or requiring permits to conduct routine maintenance and operation would be counterproductive to assuring protection of “waters of the State,” create additional burden on Regional Board staff, and create additional regulatory requirements with no meaningful environmental benefit. An exemption would recognize what is already self-evident, *i.e.*, that these types of features do not contain “waters of the State” subject to regulation pursuant to the Porter Cologne Water Quality Control Act and, by doing so, the State Board would provide greater clarity for project applicants and professionals conducting wetland delineations.

All of these are common sense exemptions and there should be no question that they are not “waters of the State.” The fact that these features are commonly created on purpose (*e.g.* artificial ponds, irrigation flows, roadside ditches, waste treatment systems, industrial processing ponds etc.) or are inadvertently created from land practices (*e.g.*, water filled depressions, erosion gullies, etc.) should be sufficient for the State Board to reach a conclusion that they are not “wetlands” that should be regulated. Many of these features also are un-vegetated and if the wetland definition were adopted without change, could also fall under the scope of the proposed definition.

In my experience, such features, when exempted by the Corps under the CWA have also been routinely exempted by the Regional Boards. This practice is long standing. Any State Board effort to change this status quo would be significantly problematic and have no relationship to either isolated wetlands or those wetlands without a “significant nexus” to navigable waters. These exemptions should be continued as the EPA and Corps recommended when drafting the new definition of “waters of the United States,”¹⁰ and apply equally to any “waters of the State.” I recommend that the above exemptions be specifically adopted in the next draft of the proposal.

2. Use of Alternatives Analysis for NWPs

The most common permit issued by the Corps is the Nationwide Permit (NWP). The Corps issues NWPs to authorize activities under CWA Section 404 and Section 10 of the Rivers and Harbors Act of 1899 that will result in no more than minimal individual and cumulative adverse environmental effects. The Corps re-evaluates these NWPs every five years, conducts a rigorous public review, and provides extensive documentation on the impacts, mitigation, and cumulative impacts of these NWPs. In addition, each Corps District can add conditions to the NWPs that also are developed with extensive public review. There are currently 50 NWPs. Over 40,000 NWP are issued annually by the Corps and they are an effective way to reduce paperwork and streamline routine activities undertaken by private and

¹⁰ 80 Fed. Reg. at 37,098.

governmental entities. Many of the activities subject to NWP are either related to critical infrastructure (e.g., power-lines and gas pipelines), or address routine, widespread activities (e.g., levee maintenance). In the State of California, approximately 700 NWPs are issued annually by the three Corps Districts (see Table 2).

Table 2. NWP issued in California by San Francisco, Sacramento, and Los Angeles Corps Districts as compiled from ORMS (OMBIL Regulatory Module), a computer database program for all regulatory actions managed by the Districts. Some data is incomplete as noted.

Corps NWP Permits Issued By Year in California				
Year	District			Total
	San Francisco (SPN)	Sacramento (SPK)	Los Angeles (SPL)	
2007	153	258	163	574
2008	222	317	183	722
2009	248	315	221	784
2010	194	216	268	678
2011	258	215	258	731
2012	227	247	171	645
2013	0*	229	134	363
2014**	300	138	20	458
Total	1602	1935	1418	4955

* Likely due to non-reporting rather than zero permits actually being issued

** Data only available for January-September

The Proposed Amendments would significantly reduce the effectiveness and efficiency of the NWP program by requiring many additional elements in the permitting process, including the use of an alternatives analysis similar to the 404(b)(1) Alternatives Analysis that is currently required only for Individual Permits issued by the Corps. Only 13 of the 50 NWPs are conditionally certified by the State Board; the remainder would require a separate CWA Section 401 Certification by the Regional Boards. Processing of the CWA Section 401 Certifications under the existing state program already requires a substantial amount of staff time and there are frequently delays in meeting the time lines established by federal and state regulations.

Under the Preliminary Draft, the need for an alternatives analysis similar to, if not the same as the 404(b)(1) Alternatives Analysis, will result in an increase in the costs to applicants and in delays in processing CWA Section 401 Certifications due to the increased work load on Regional Board staff. At the workshop, State Board staff indicated that the degree of complexity associated with the Alternatives Analysis would be determined on a case-by-case basis, presumably with the decision left up to the Regional Board staff. However, without any direction in the Proposed Amendments on how to make these decisions, Regional Board staff will most likely revert to conducting full Alternative Analyses to avoid criticism from opponents to projects and to address criticism of unfairness by those applicants required to do more complicated analyses compared to other applicants. Equally concerning, the discretion provided to staff means that project proponents cannot know, when planning projects, whether they will be required to conduct a full Alternative Analysis to proceed. In addition, because

there is no lower limit to the wetland acreage or linear feet of stream impacted that may trigger a required Alternatives Analysis, even those NWPs with a small impact¹¹ that do not require a Preconstruction Notification to the Corps will be forced to comply with the requirement to conduct an Alternative Analysis. As a result, Regional Board staff will be inundated with additional work load and applicants will incur time delays and costs to comply (see Section 4 for analysis on costs for compliance). This could be a significant issue for a variety of projects, including those with project financing where carrying costs could accrue due to delay, for government projects with time-sensitive contracting requirements, and for seasonally-sensitive projects (e.g., work that has to be performed in the summer because of snowfall in the winter months, etc.).

In the instance where the Corps must do a 404(b)(1) Alternatives Analysis for an Individual Permit, the Regional Boards will likely need to perform a different analysis if the Preliminary Draft wetland definition is adopted. Under the 404(b)(1) guidance, there is a rebuttable presumption that a non-wetland dependent activity cannot avoid wetlands and still be feasible and practicable. Depending upon how broad the State wetland definition eventually becomes, in practice, applicants may need to perform separate Alternatives Analyses for the federal and state agencies.

This substantial shift in effort from examining only Individual Permits under the 404(b)(1) guidelines to examining all permit activities will necessarily shift the focus from larger actions to any action with a minimal or inconsequential impact. On average, there are 700 NWP issued annually in California by the Corps. The effort to review, comment, and approve Alternative Analyses will dilute resources and will eliminate streamlining and efficiency that is the desired outcomes of using NWPs. Furthermore, the Proposed Amendments do not identify a compelling need to require Alternative Analyses for projects subject to the NWP program. I recommend that the requirement for an Alternatives Analysis be deleted from all actions that are permitted by NWPs.

3. Mitigation Requirements

In the 2008 EPA and Corps Compensatory Mitigation Rule, 70 Fed. Reg. 19,594 (April 10, 2008), mitigation banks, in-lieu fee programs, and permittee responsible mitigation are listed in order of priority for use in meeting mitigation requirements under the CWA. The identification of mitigation banks as a priority by EPA and the Corps is significant because mitigation banks have proven to be successful in achieving the replacement of loss aquatic functions. In 2004, the Society of Wetland Scientists released an independent position paper describing mitigation banking as a sound mechanism which can improve compensatory mitigation success and contribute to the goal of no net loss of wetlands and other aquatic resources. Based on records maintained by WRA, there are currently approximately 50 wetland mitigation banks operating in the State of California.

The Proposed Amendments adopts most of the 2008 Compensatory Mitigation Rule, except for 40 C.F.R. Section 230.93(b)(1) that sets forth mitigation banks as a first priority for providing compensatory

¹¹ For a number of NWPs, projects with minor fill less than 10 cubic yards or less than 0.1 acre of impact are automatically qualified under the NWP and no Preconstruction Notification is necessary to the Corps and the project can proceed if it meets all other conditions, including obtaining a CWA Section 401 Certification.

mitigation. As stated at the workshop, and is clear in the Proposed Amendment, the use of mitigation banks is viewed as a “soft preference.” The State Board’s proposed lack of support for mitigation banks conflicts with the EPA’s and the Corps’ position and sends a conflicting message to applicants and the mitigation banking industry on compensatory mitigation. The Preliminary Draft does not explain why the State Board is taking a position contrary to EPA and the Corps and the evidence of the value of mitigation banks. Mitigation banks have proven to be successful in achieving replacement for wetland impacts and have defined service areas based on watershed areas and approvals by federal and state agencies, including the Regional Boards. The State Board must explain why it is not making mitigation banks a priority and establishing a policy in conflict with the EPA and the Corps.

The use of a watershed plan is being used as a substitute for shifting the emphasis on compensatory mitigation to permittee responsible mitigation on-site. The watershed plan requirement is an unfunded mandate under the Proposed Amendments and will require substantial resources, either by local agencies or the applicants to develop watershed plans that must be approved by the Regional Boards. The State Board is not committing any funds for development of watershed plans by local agencies and does not explain how or on what timeframe watershed plans will realistically be developed across the State without such funding.

I recommend that the Proposed Amendments include the similar preference for approved mitigation banks that is contained in the federal Compensatory Mitigation Rule and that, should mitigation banks be approved within a particular region, the Regional Board will work with those mitigation banks to provide compensatory mitigation to projects within the approved service areas.

4. Additional costs, delays, and staff requirements of Proposed Amendments

As described above, the Proposed Amendments propose a number of additional steps and documents beyond the requirements of the current CWA Section 401 Certification program. Many of these changes will apply to all Individual, Regional, and NWP issued by the Corps Districts. By far, the most frequent authorizations issued by the three Corps Districts in California are NWPs and approximately 700 are authorized annually throughout the State (Table 2). Therefore my analysis focused on the 401 Certification costs associated with NWPs. If the Proposed Amendments were implemented, they would substantially increase time and costs associated with the 401 Certification process and place further demands on Regional Board staff who are already burdened with a heavy work load.

I have developed an analysis of the potential additional costs associated with the CWA Section 401 Certification process (Table 3) for projects otherwise subject to the NWP program. The analysis provides a list of the additional materials that will be required beyond those currently included in applications to the Corps and Regional Boards. For each of these materials, I have provided an estimate of the typical cost associated with producing these documents by a consultant on behalf of an applicant, the estimated time that Regional Board staff may require to review these materials or conduct the necessary field work, and the delay that may be entailed in order to process these requests. On the latter estimate, I have used my experience in working with various Regional Board staff when processing

applications. Finally, I have provided information on training that will be required by Board staff to understand the information being submitted and to process the requests.

4.1 Delineation

The Proposed Amendments make frequent use of the term “case-by-case.” Because the proposed definition of wetland is not the same as the one used by the Corps of Engineers, there will be great uncertainty in how the definition will be applied. In addition, many of the exclusions and exemptions contained in the federal regulations (see Section 1.2 of this letter) are not adopted by the Proposed Amendments. In recognition of this problem, the Preliminary Draft states “project proponents are strongly encouraged to contact the Water Boards for assistance prior to submitting an application for dredged or fill projects” [Preliminary Draft at 2]. Such clarification may be necessary prior to field work so that appropriate mapping can be conducted, but pre-application consultation will likely increase project delays, particularly if Regional Board resources for administering this entire program are stretched. In addition, the Regional Board staff may cause substantial delay and cost by requiring rainy season data, especially if the initial field work is initiated in the spring or summer of any year [Preliminary Draft at 4]. Such data is not required by the Corps as the 2008 Regional Supplements provide indicators to be used during the dry season.

In my experience, Regional Board staffs relied substantially, and in most cases, exclusively on Corps verified delineations using the federal wetland definition. In addition, most Corps Districts now process delineations as Preliminary Jurisdictional Determination which include all wetland features on the site. These maps also include non-vegetated wetlands as other “waters of the United States.” This information can then be directly incorporated into CWA Section 401 Certification applications in a consistent manner. Under the Preliminary Draft, the applicant, its consultants, and Regional Board staff will need to apply the State definition to determine if there are additional features that should be regulated as wetlands, or otherwise are “waters of the State,” and this will have to be presented in separate reports and maps to be verified by Regional Board staff. This cannot be successfully implemented unless Regional Board staffs have appropriate training in these procedures. Furthermore, additional mapping may occur outside the project boundaries if the project may “affect them” in a manner that is not described in the Preliminary Draft. These additional steps will add to the cost of the delineation, require additional staff time, and necessitate training staff in delineation practice.

4.2 Application

The current CWA Section 401 Certification application contains much of the same information as required in a Corps PreConstruction Notification. However, under the procedures described in the Proposed Amendments, additional information must be submitted by project applicants. For example, while no guidance is provided on how to address climate change, project applicants may be required to address the issue as part of the application process. More significantly, the Proposed Amendments require that a 404(b)(1) “like” alternatives analysis be undertaken for NWP [Preliminary Draft at 2, 6, and Appendix A]. The Alternatives Analysis itself is frequently very lengthy, can include both on and off-site project locations, requires extensive consultant time by planners, engineers, and biologists to evaluate alternative site designs, and may even necessitate economic considerations. Additionally, legal

counsel is often involved given the legal complexities of the Alternatives Analysis process. Presently, only the San Francisco Regional Water Quality Control Board requires a 404(b)(1) Alternatives Analysis for NWP. I have experience in scoping and preparing these types of Alternative Analysis documents via permit applications submitted to that Regional Board. The costs can be substantial for a typical NWP applicant to prepare engineering drawings, prepare calculations, and submit reports. I have examined the consultant fees for four recent Alternative Analyses for NWPs conducted by applicants for the San Francisco Regional Water Quality Control Board. Costs ranged between \$15,000 to \$50,000. As noted, those costs represent only a fraction of total costs which would also include costs associated with delay, costs for legal counsel, and staff time by project proponents. Including these costs to consultant costs, I estimate the average cost of an Alternatives Analysis for an applicant at \$40,000.

Regional Board staff will need to review, provide comments, and evaluate final reports. Because of the public nature of the certification process, this document would also likely be reviewed by the public, including opponents to the project, who may request additional information and documentation prior to the final certification. More importantly, there can be substantial delays in processing documents by the Regional Board staff given the extensive information that will need to be verified. In my experience to date, Regional Board staff often takes 60-90 days or more to respond to detailed documents under their current work load.

4.3 Mitigation

The Preliminary Draft relies heavily on conducting a watershed profile as part of the compensatory mitigation approval [Preliminary Draft at 4]. It is presumed that such an analysis would be required regardless of whether mitigation bank or in-lieu fee credits are purchased or permittee responsible mitigation is undertaken. Some guidance is provided on what is required within a watershed profile; but since it is an entirely new type of document not previously required, I have had to make a best case determination of its cost. Regional Board staff will also need to be trained in how to evaluate and review watershed profiles and respond to public comments on these documents.

A functional assessment (as yet undefined, but presumably CRAM) will also need to be undertaken on the impacted wetlands. At present, CRAM is not required for NWPs by the Corps, which uses a mitigation ratio calculator for determining mitigation acreage. The CRAM analysis which be conducted by the applicant, reviewed by Regional Board staff, and likely require further revisions by the applicant. CRAM can only be completed by certified individuals under a rigorous training program that will increase costs to applicants and training time for Regional Board staff.

4.4 Costs & Delays

The costs associated with a “typical NWP” for fill of less than 0.5 acres can be substantial given the “case-by-case” considerations that the Board staff will need to make (Table 3). I have determined that the additional costs would be approximately \$145,500. While not all costs may apply to a particular permit action, for controversial projects, where there is a NIMBY element or a vocal environmental or labor opponent, the costs could be significantly higher. I have also estimated that the new requirements would require additional Regional Board staff time of 16 days to process this “typical NWP.” More importantly, the time delay for applicants could be substantial. While not all of these time periods are

additive, I believe a reasonable estimate of the delay in a “typical NWP” to be a year or more (Table 3). In addition, my estimate of the costs does not include the costs associated with delays on the project proponent or the public state or municipal agency. Costs incurred to retain property in escrow, to secure mitigation credits, and delays in construction of infrastructure are likely to increase for applicants if the Proposed Amendments are finalized. If the State Board does not believe there will be additional delays as described in Table 3, it must explain how applicants will take these additional required steps, provide these additional required documents, and participate in the Regional Board review and approval process without time delays in the application process. At the Workshop, Board staff stated that revised permit application forms and procedures will be developed to increase efficiency; however, these have not been produced at the time of these comments are due and therefore cannot be evaluated to see if they will achieve that purpose. The State Board should explain what it believes will be the additional time delay from the current process, if it believes it is different from what is in Table 3.

The estimated delays that are outlined in Table 3 assume that the Regional Boards will obtain an increase in budget and full-time staff to implement this new program (*i.e.*, the estimates presume no delay associated with backlog or the otherwise unavailability of staff to work on permitting projects). In other words, the estimated delays are the *best* case scenario. The Proposed Amendments do not discuss if or how the Regional Boards would obtain the necessary resources to actually implement a new program. It is very likely that there will be no new resources, let alone the resources that are necessary to achieve the timelines assumed in Table 3. As a result, the delays outlined in Table 3 will likely, as a practical matter, be much longer as a backlog in permit applications develops and significant delays accrue. These significant delays will only be more pronounced in the beginning of this new program, before Regional Board staff have the ability to be adequately trained in wetland delineation, reviewing watershed profiles, etc. Further, this estimate does not include the time that Regional Board staff would need to devote to supporting the defense of permitting decisions in response to litigation by environmental or labor opponents or project applicants. Time spent by Regional Board staff responding to an anticipated increase in litigation, means the loss of time devoted to processing new applications, further delaying the process for other permit applicants seeking Waste Discharge Requirements. The State Board must explain how the Regional Boards will fund and staff the implementation of this new program so there will not be significant delays in the permitting process.

The estimate of \$145,500 for additional costs is the estimate for an “average” or “typical” NWP subject to an Alternatives Analysis. In California, approximately 700 NWPs are issued each year (see historical data in Table 1). As a result, this would equate to over \$100 million in additional applicant costs and 47 additional person years¹² of work by Regional Board staff to process. In addition, there will be a substantial training program required for current staff and new hires necessary to implement this program. While I have tried to be conservative in my estimates, it is likely that actual costs will be higher to comply with the policy as proposed, both by NWP applicants and by the Regional Board staff. Furthermore, this assessment only estimates additional cost and potential delay associated with NWP applications. There will be an even greater cost and delay for applicants seeking individual Waste

¹² Calculated as 260 work days during the year minus 10 holiday and 10 vacation days equals 240 work days available.

Discharge Requirements, particularly for more complex projects. In fact, the Proposed Amendments indicate that such projects may be subjected to two rounds of public comment on an Alternatives Analysis, which would substantially increase delay and cost as well as demand on Regional Board staff.

There is no explanation in the Preliminary Draft on how the Regional Boards will meet these additional demands and avoid crippling delays in the permitting process and the associated impacts on public and private infrastructure projects and the California economy.

5. Summary

I am submitting these comments with a request that the State Board staff revise the Proposed Amendments based on recommendations highlighted in this letter in order to be consistent with federal policy and to minimize and reduce redundancy and inefficiencies in assuring the protection of “waters of the State.” The comments made in this letter represent my individual opinion and experience over 35 years and are not meant to be representative of my employer.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Michael Josselyn', with a long horizontal flourish extending to the right.

Michael Josselyn, PhD
Certified Professional Wetland Scientist

Table 3: Additional Steps and Costs associated with processing a Nationwide Permit 401 Water Quality Certification under Preliminary Draft Proposal

Activity	Reference to Preliminary Draft Policy Section	Additional Actions Under Proposed policy	Applicant Cost	Additional Applicant Cost	Estimated additional RWQCB Staff time (day)	Estimated additional processing time (day)	Additional Training Required for Board staff
DELINEATION							
Corps Verification PJD			Base cost				No
	Page 2; Line 51-53	Request clarification on "waters of the State"	\$	2,000	1	30	Yes
	Page 4; Line 129-131	Additional wet season data	\$	10,000	0.5	180	Yes
	Page 3; Line 105-107	Additional Mapping using State Wetland Definition	\$	5,000			Yes
	Page 4; Line 115-116	Mapping outside of project that "could be affected"	\$	5,000			
	Page 1; Line 41-43	Field verification of "waters of the State"	\$	5,000	2	60	Yes
Subtotal			\$	27,000	3.5	270	
APPLICATION							
Corps PreConstruction Notification			Base cost				
401 Water Quality Certification			Base cost				
	Page 4; Line 132-134	Assessment of potential impacts due to climate change	\$	4,000	1	30	Yes
	Page 4; Line 135-136	Preparation of Alternatives Analysis					
	Page 6; Line 229-234	Additional consultation on Alt Analysis by Board staff	\$	5,000	1	30	
	Page 6; Line 237-241	Alt Analysis required for non-certified NWP	\$	40,000	4	60	Yes
	Page 6; Line 268-272	Alt Analysis approval by the Board staff	\$	8,000	2	60	
Subtotal			\$	57,000	8	180	
MITIGATION							
Mitigation Proposal in Compliance with 2008 Corps/EPA Mitigation Rule		Demonstration of Mitigation Credit Purchase or preparation of permittee-responsible mitigation	Base cost				
	Page 4; Line 145-155	Watershed Profile					
		Collection of field and mapping data	\$	10,000	0.5		
		Condition of aquatic resources in evaluation area	\$	20,000	1		
		Map and Report of aquatic resources in evaluation area	\$	15,000	1	60	Yes
	Page 4; Line 139-140	Functional Assessment of Impacted Wetlands	\$	15,000	2	30	Yes
	Page 5; Line 174-179	Consult with airport Authority if within 5 miles	\$	1,500			
Subtotal			\$	61,500	4.5	90	
TOTALS			\$	145,500	16	540	
ANNUAL NUMBER OF NWP ISSUED IN STATE			700	\$ 101,850,000		47 Staff Required	